

Montana Portion of GYA Elk Population Distribution, Status and Trends

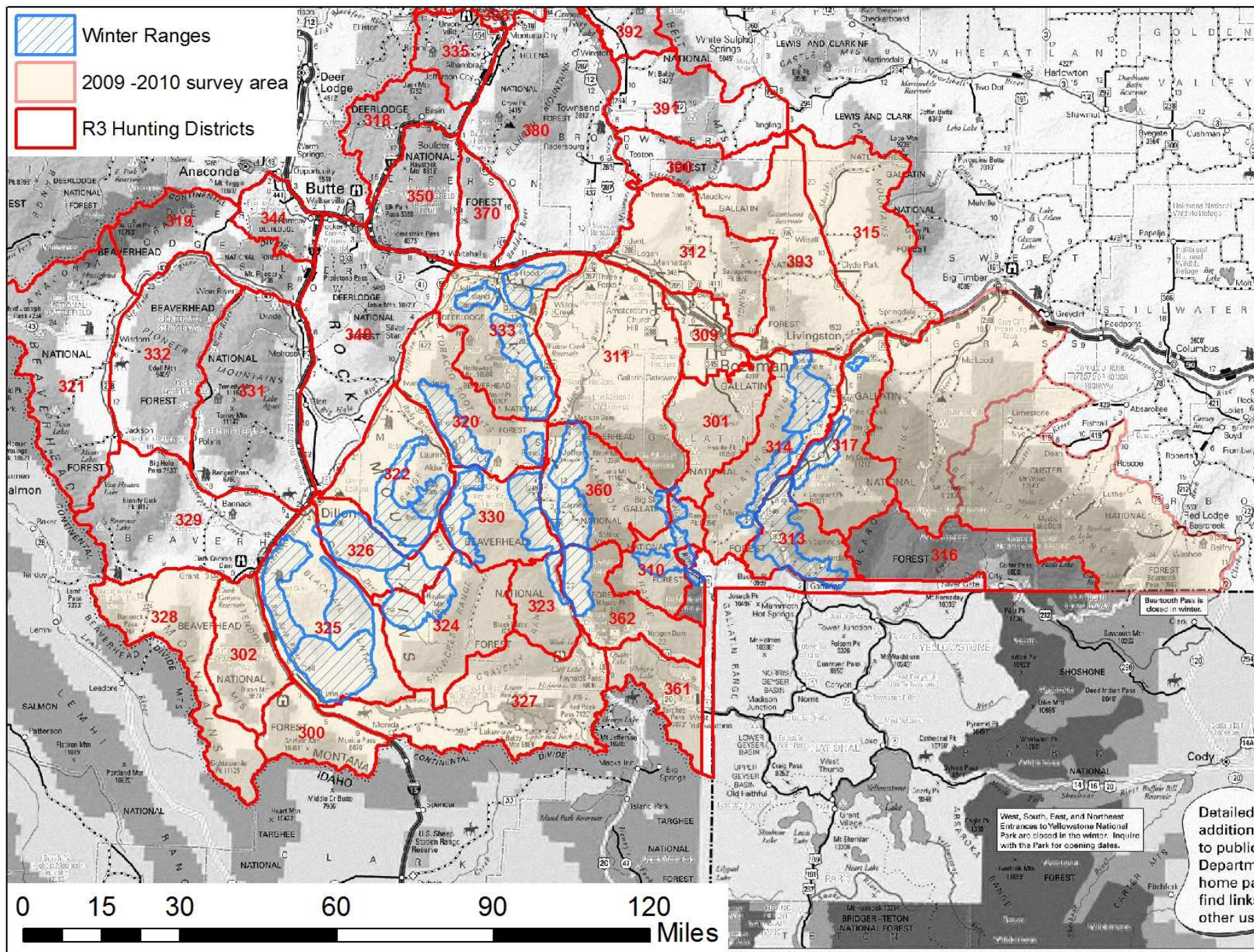
Kelly Proffitt
Julie Cunningham

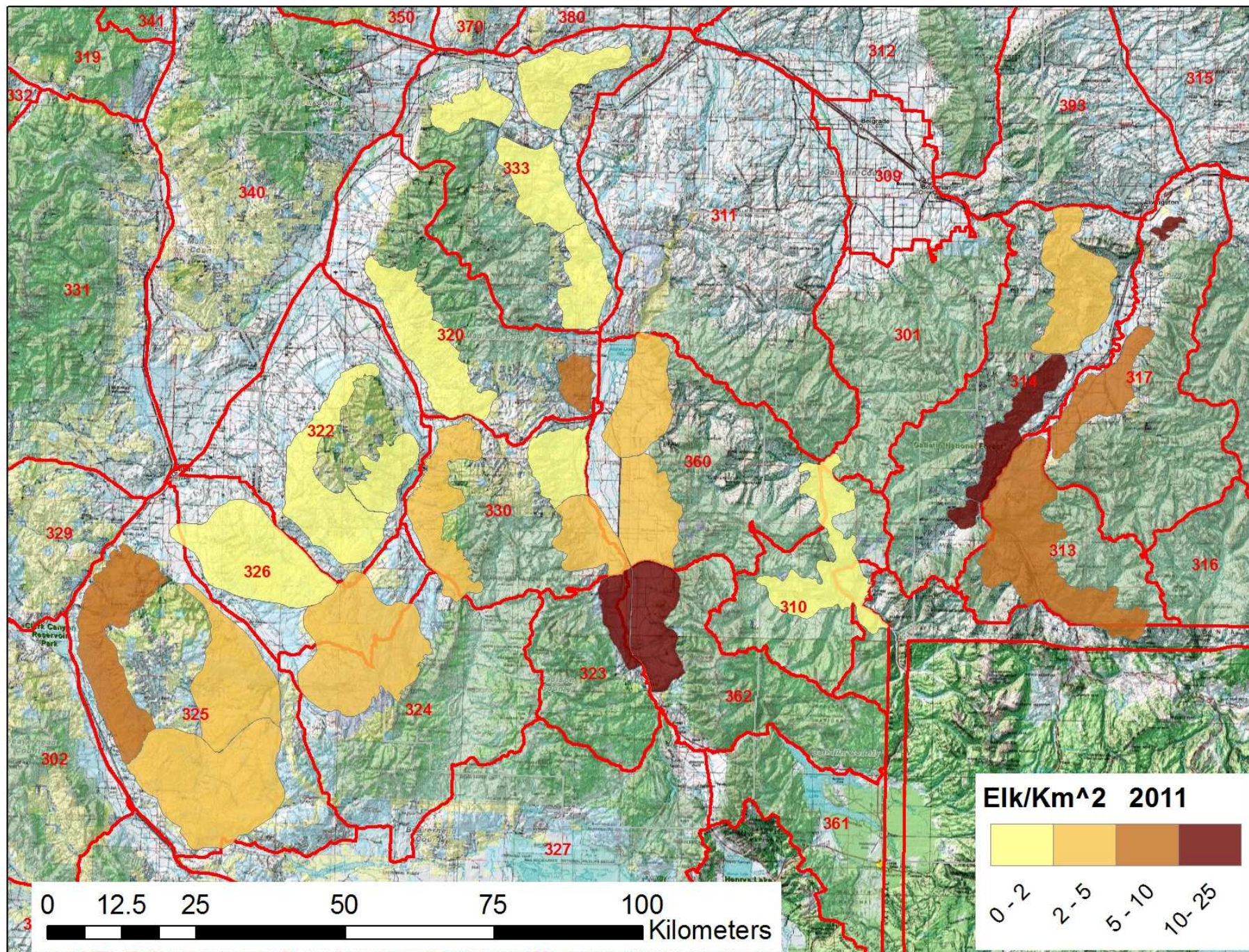


**Montana Fish,
Wildlife & Parks**

Objective

- Describe GYA elk herd winter areas and density
- Describe population trends
- Describe summer movements
- Discuss management challenges and objectives

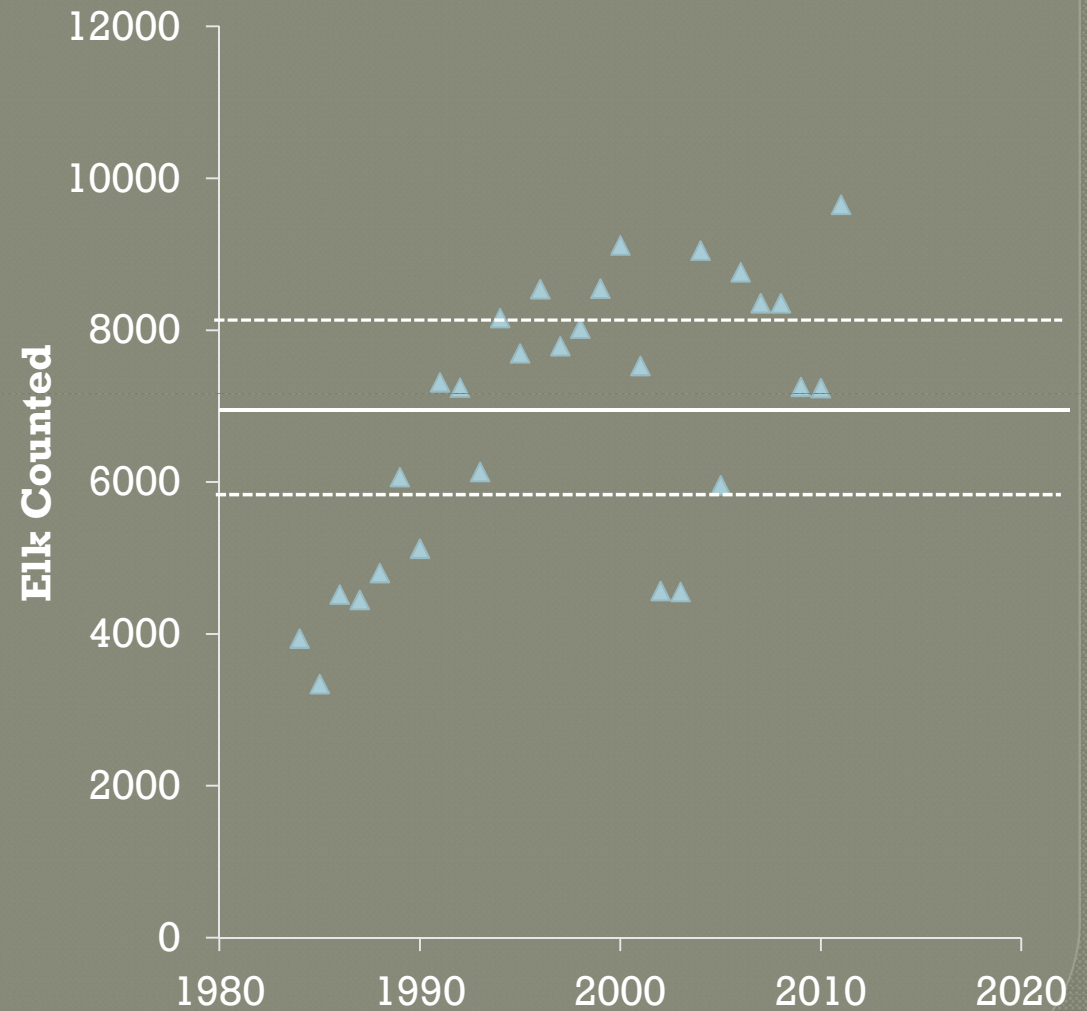
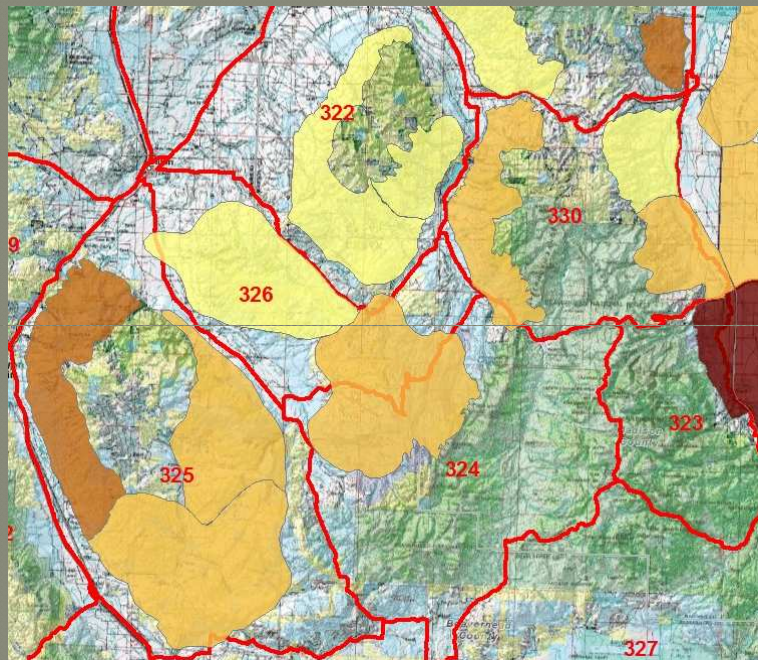




Densities

- Recall that density is a fraction of number of elk divided by winter range area
- Small winter range may mean high density even where elk are declining
- Important to know other issues!

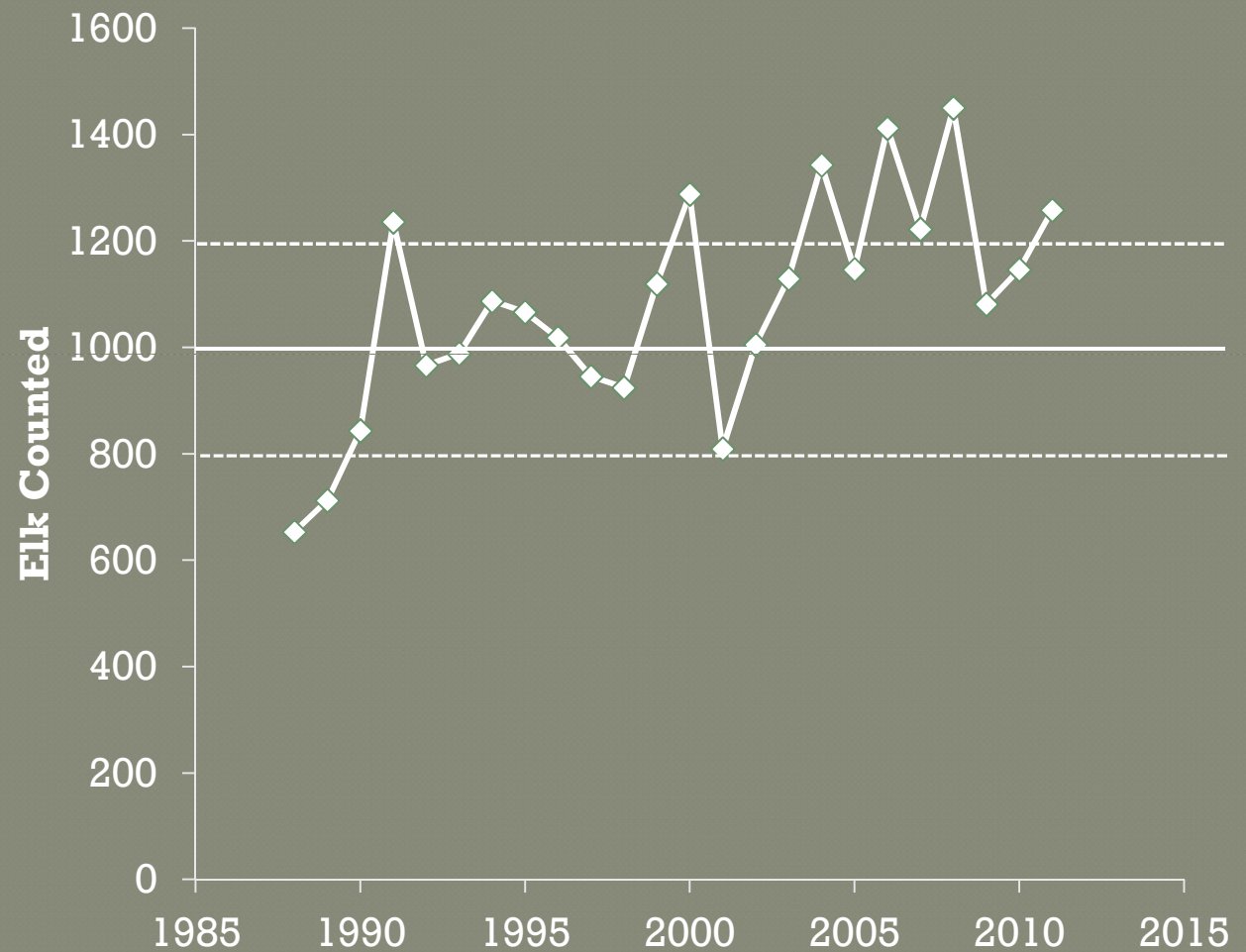
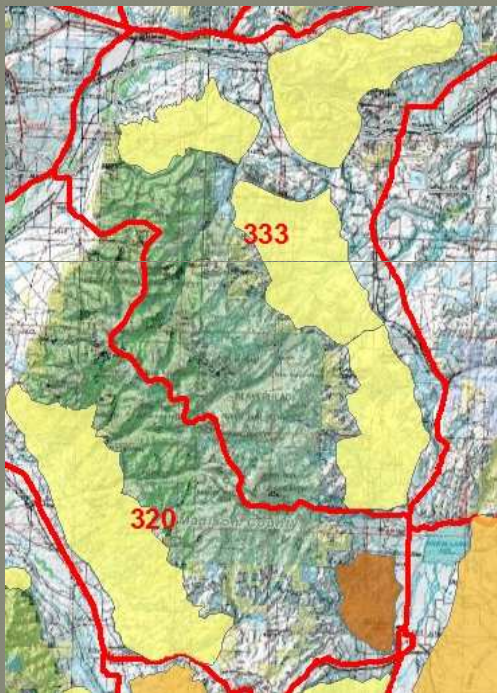
Gravelly Complex



Gravelly

- Some access issues around Greenhorns, Blacktail Ridge, 325, 322.
- More elk on private lands than BTRL last few years – less snow/lower elevation?
- Have used elk herder to move elk from private to BTRL WMA's (brucellosis)
- 325 “harboring” situation, not able to manage elk . Neighboring landowners are concerned about brucellosis risk.

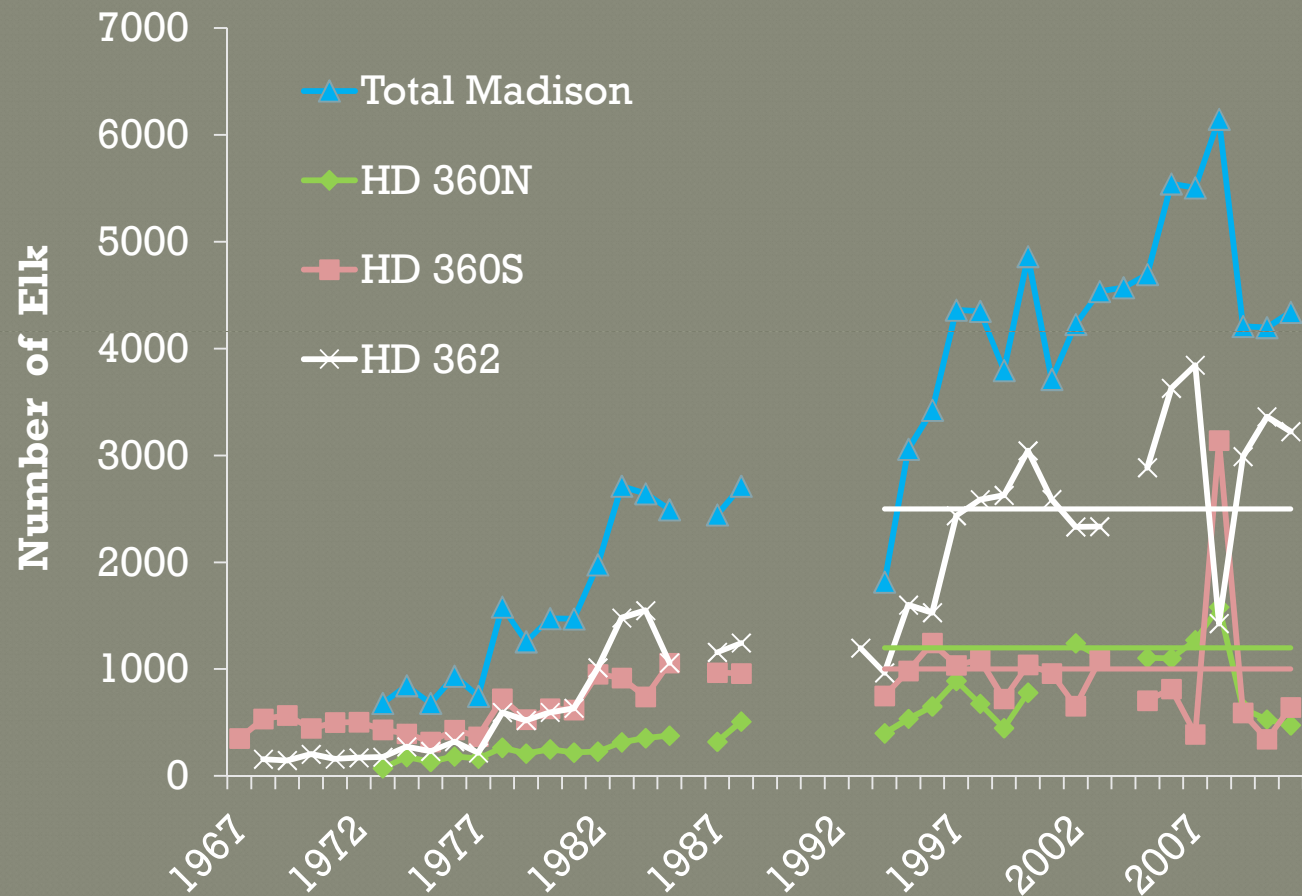
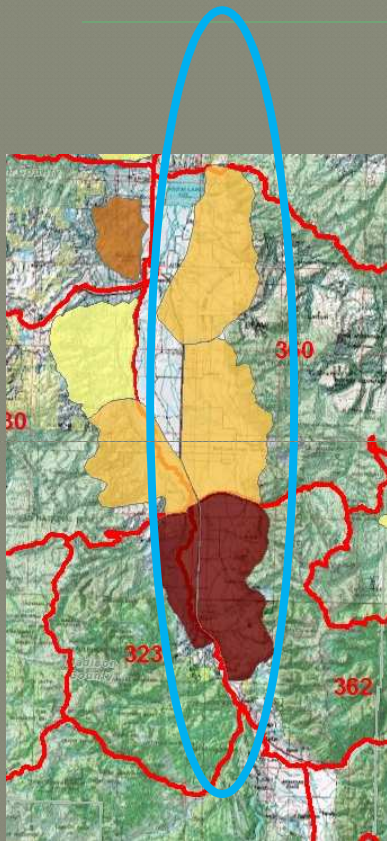
Tobacco Roots



Tobacco Roots

- BTB/Antlerless season-long, some B tags
- Hunter access can be difficult. Numbers determined by landowner tolerance.
Winter range = private
- Game damage has not been significant for a few years. No herders, etc.

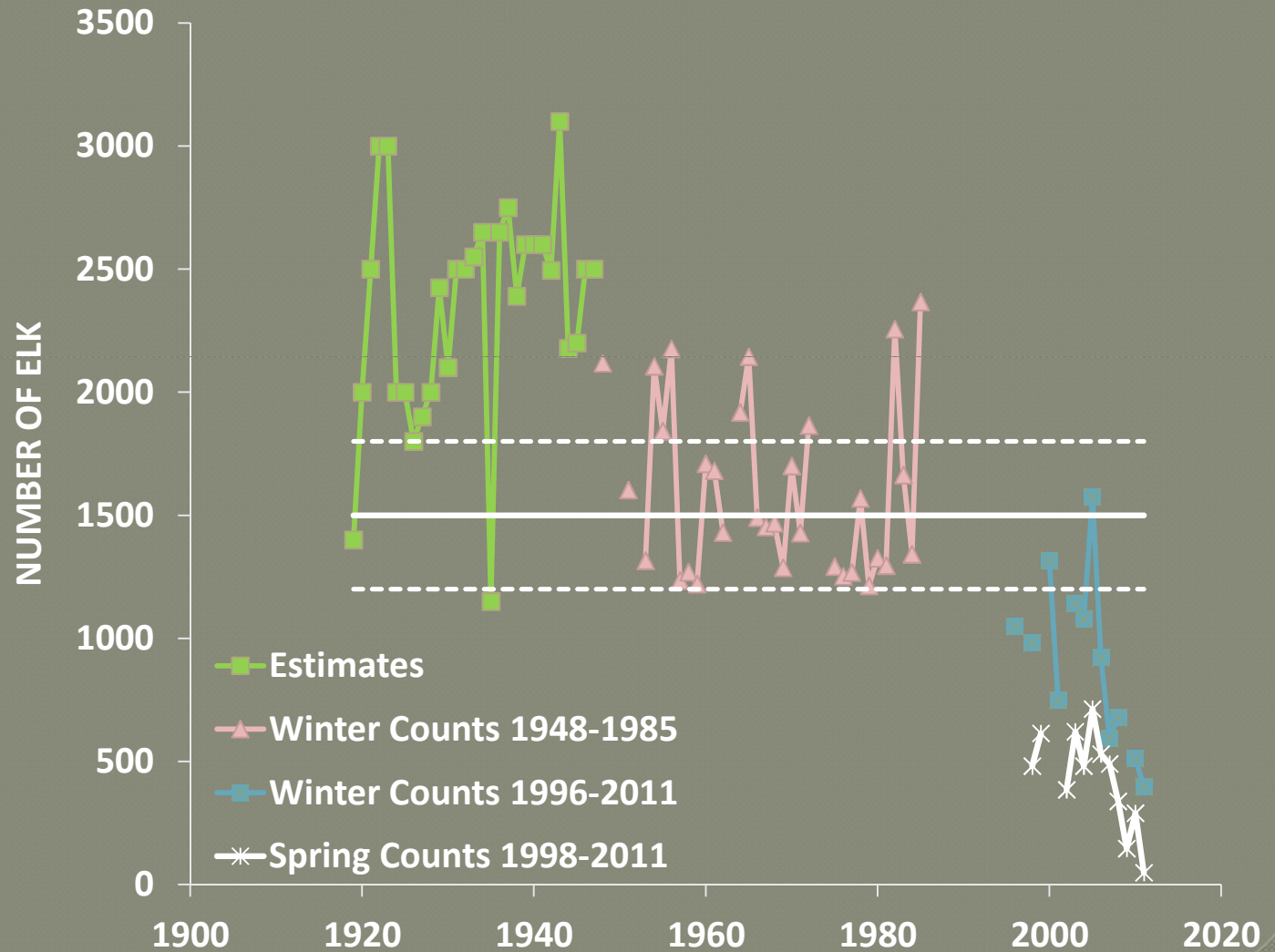
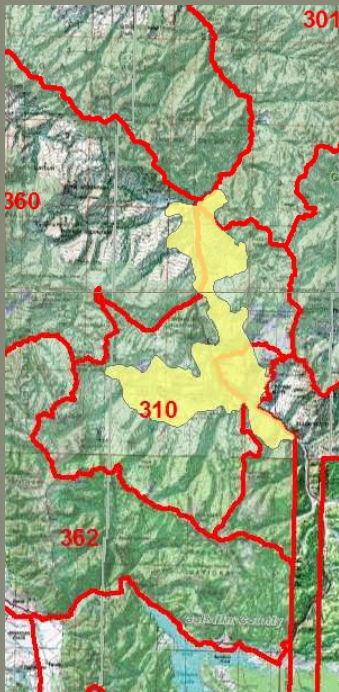
Madison Valley



Madison Valley

- 2 of 3 subpopulations below objective
- Stable to declining trend
- Overlap with wintering cattle
 - Brucellosis
 - Competition
- Yearly game damage hunts (100-200 elk)
- “Elk Herder”

Gallatin Canyon

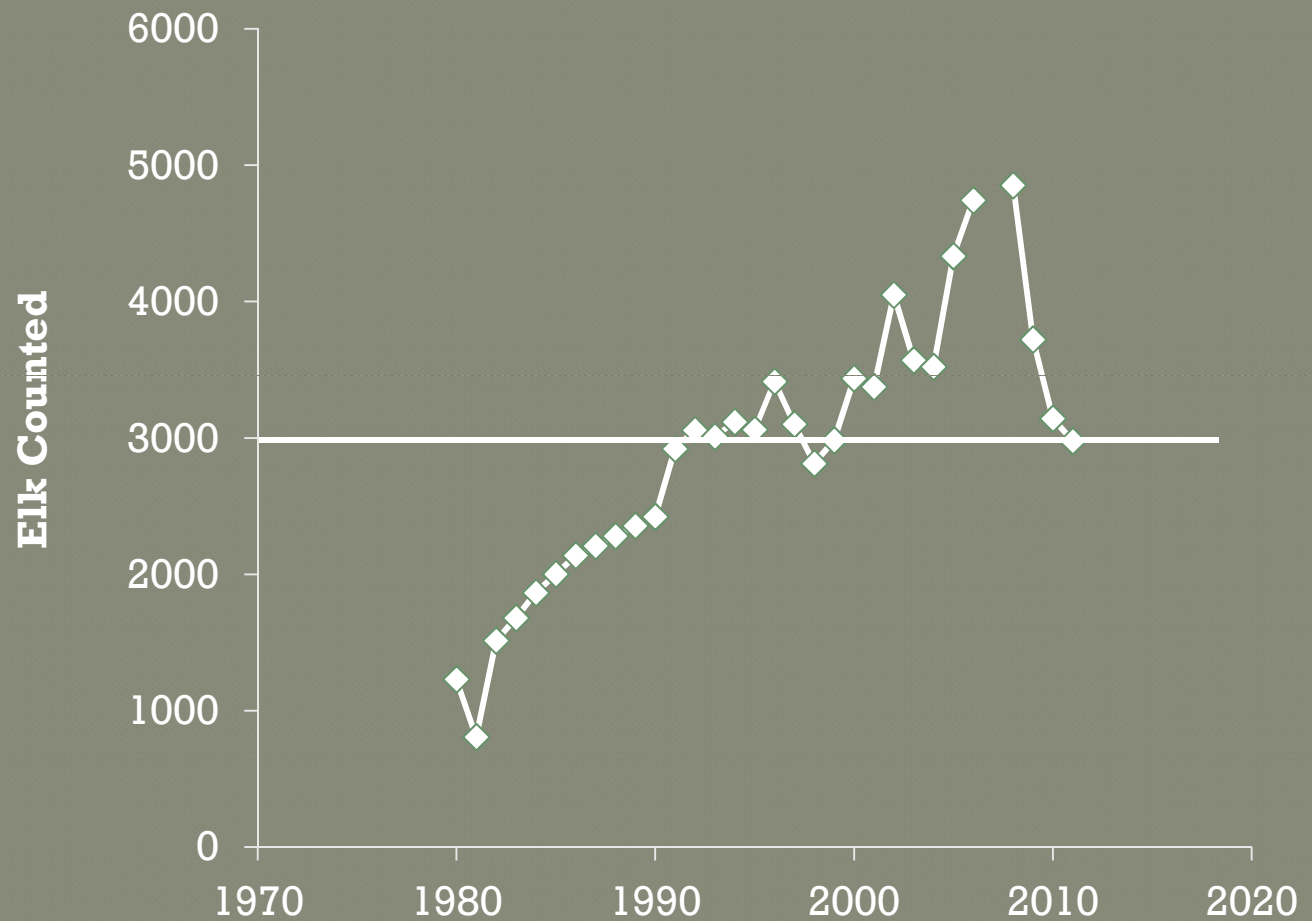
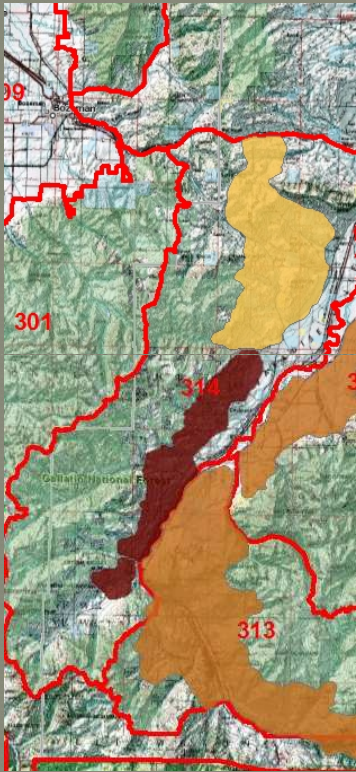


Gallatin Canyon

- ◉ Declining population
- ◉ 75% below objective
- ◉ No cattle, no game damage
- ◉ Largest challenge: predation



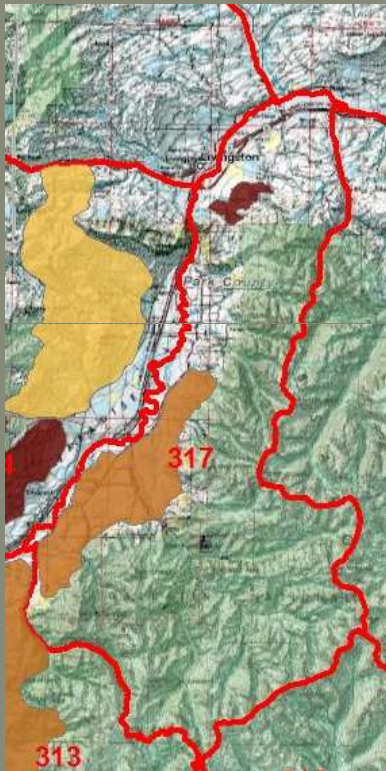
W. Paradise Valley (HD 314)



W. Paradise Valley (HD 314)

- Most elk are in north: density is lower
- Years of liberal hunting (1,000 B licenses) did reduce this herd
- Declining trend → proposed general license BTB only (with adjustable B's)
- Few game damage issues, but eligibility is limited.
- Increasing predator densities (wolf, grizzly, mountain lion)

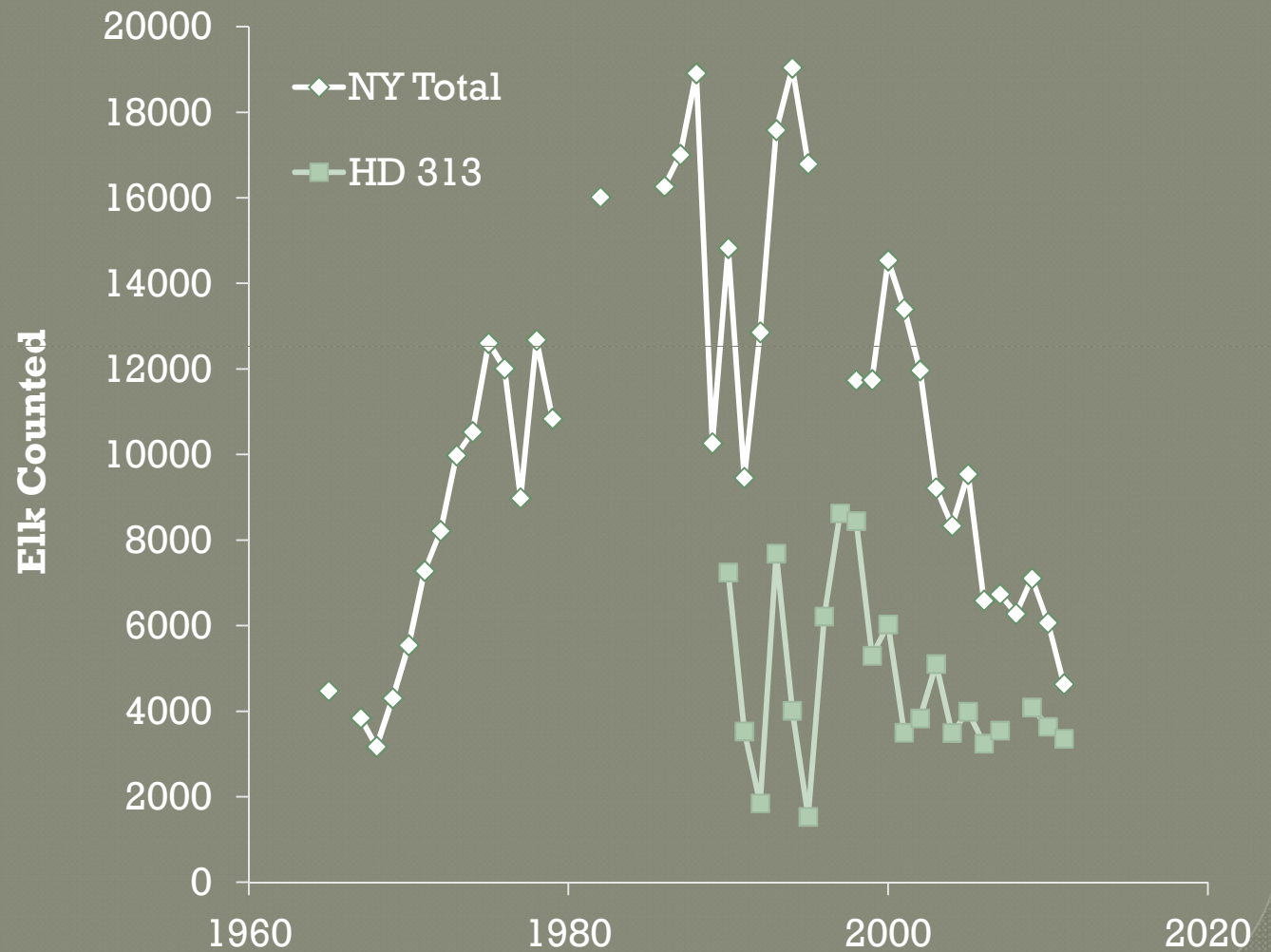
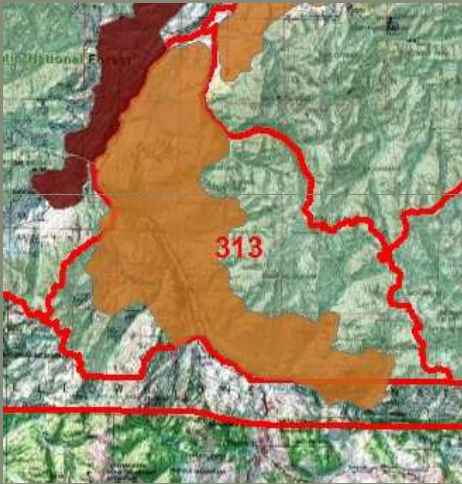
E. Paradise Valley (HD 317)



E. Paradise Valley (HD 317)

- Stable population, at objective (900 elk)
- Some game damage. Elk are close to cattle on winter range (narrow winter range)

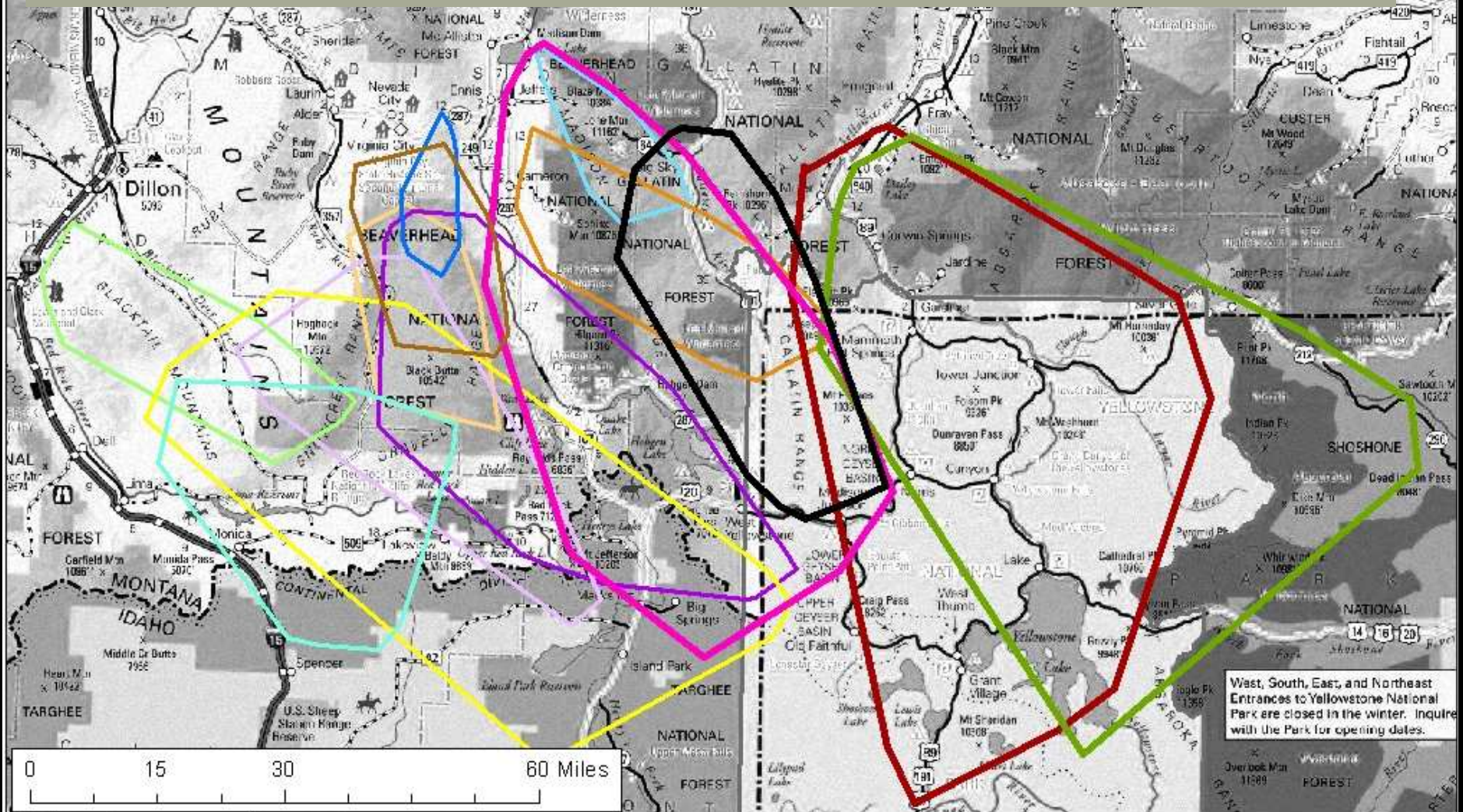
Northern Yellowstone



Northern Yellowstone

- Years of late hunts 1980's-early 2000's
- Hunting reduced mid-2000's, late hunts ceased 2009
- Proposed BTB by permit only (unlimited)
- Predation is a major consideration
- Increasing brucellosis concern but little game damage outside of YNP
- Note increasing proportion wintering outside YNP

But Winter Range is only Part of the Story!



MINIMUM CONVEX POLYGONS FROM FEMALE ELK

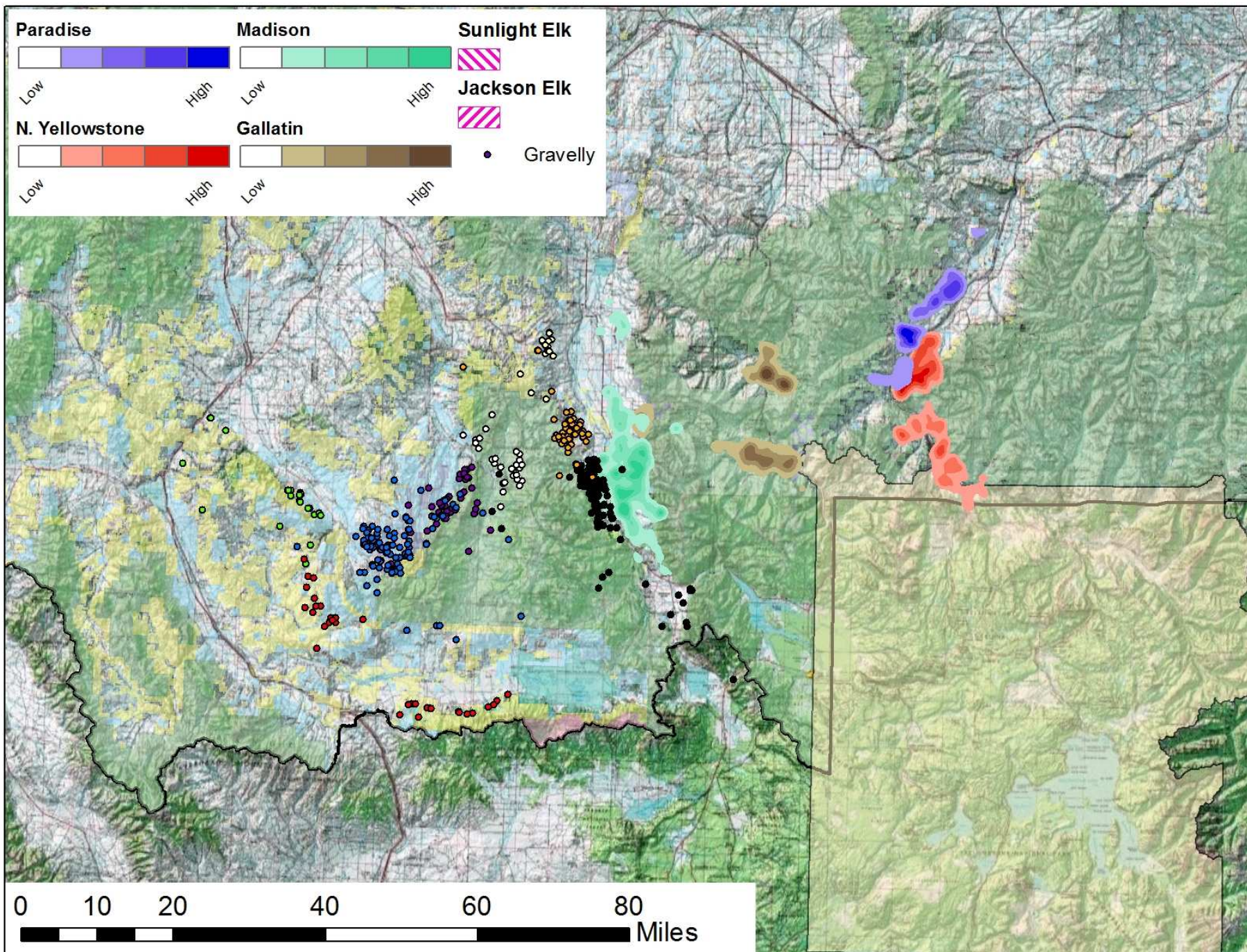
n = 8	Blacktail Ridge	n = 3	Axolotol Lake	n = 33	Robb Ledford	n = 201	Wall Creek	n = 28	HD 313 1984-87
n = 11	Basin-Sage Cr	n = 23	Cherry-Morgan Cr.	n = 8	Jumping Horse	n = 43	HD 362	n = 43	HD 313 2007-08
n = 184	Blacktail	n = 11	Warm Springs Cr	n = 5	Bear Creek	n = 51	Gallatin		

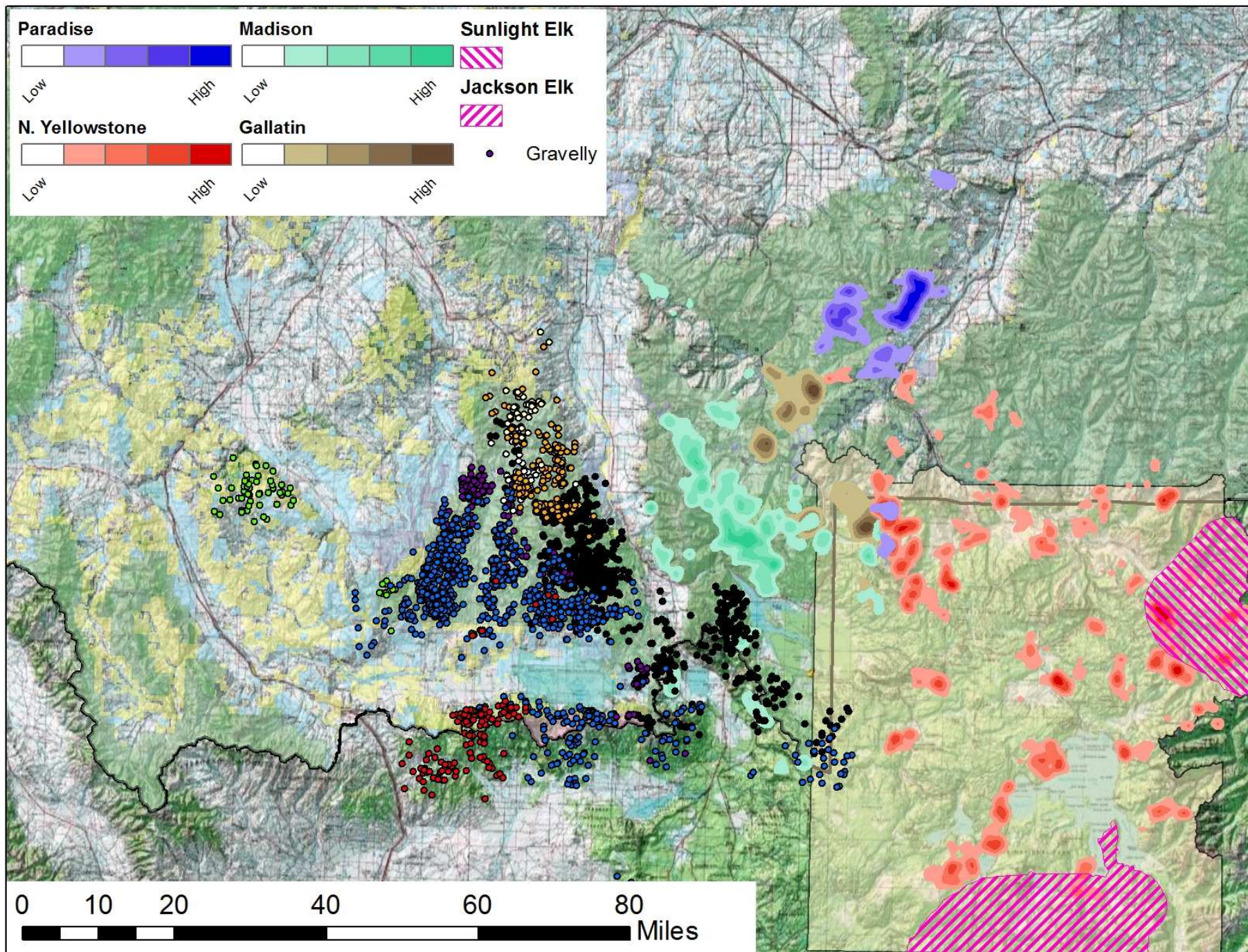


Movement Data

- GPS collars (W. Paradise, N. Yellowstone, Gallatin, Madison) 2002-2009
- VHF Telemetry Gravellies 1987-1998



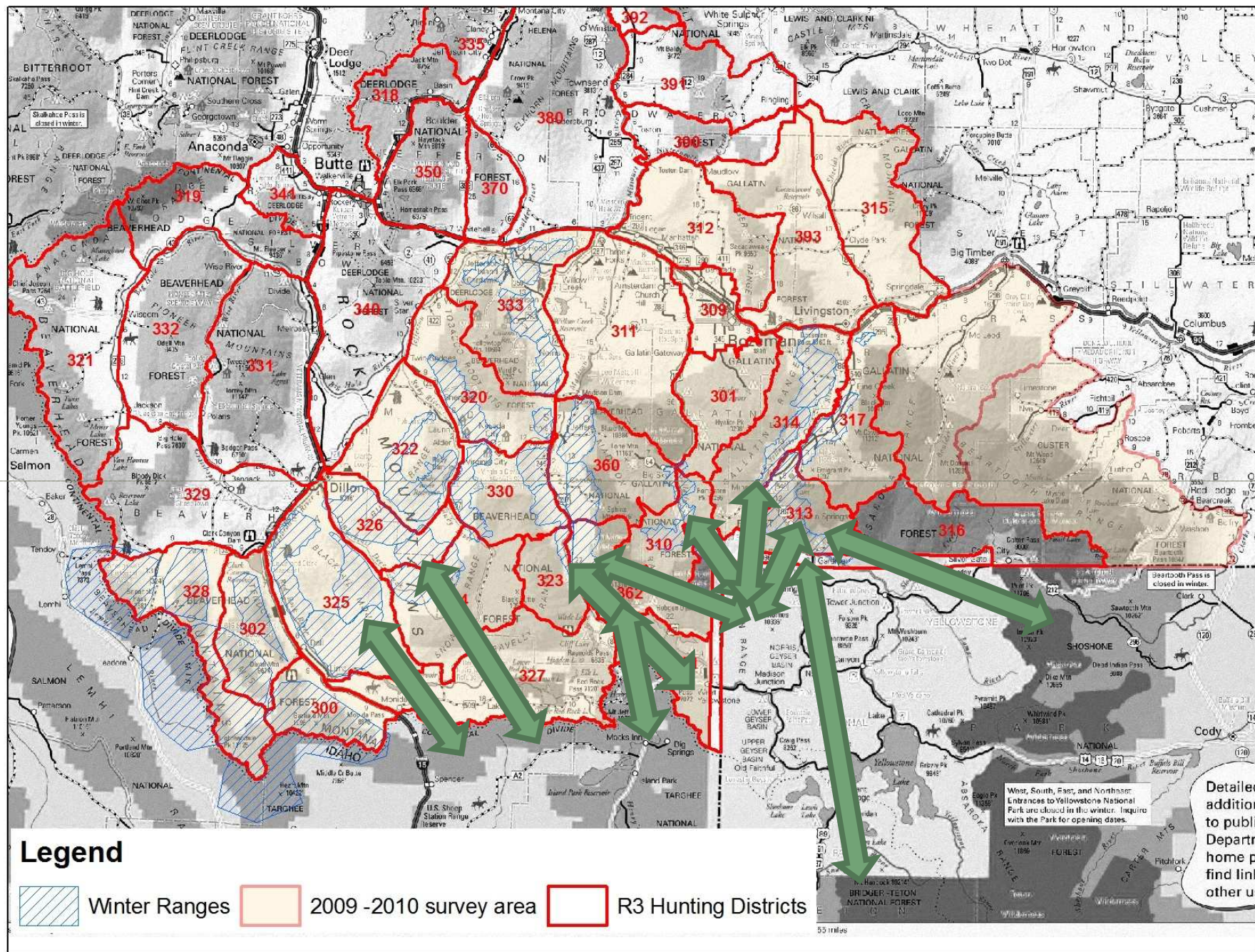




Elk Movements

- Within telemetry areas:
 - Winter ranges = 16% of total range*
 - 41% of total range* outside MT (YNP, ID, WY)
- Within Montana:
 - 76% of range* is PUBLIC LAND
 - 24% of range* is PRIVATE LAND

**Rough summaries based on polygon encompassing all elk GPS/VHF data in all areas*



Elk Movements

- Populations are connected throughout MT, ID, WY
- Total herd range is over an enormous spatial area, including many public lands
- Winter ranges often overlap private lands
- Reduced tolerance for elk on their winter ranges will adversely affect hunting opportunity and herd survival

Acknowledgements

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